

Universiti Teknologi MARA

**The Development of an Online Practical Application
(OPA) System**

Khazian binti Kassim

**Thesis submitted in fulfillment of the requirements for
Bachelor of Science (Hons) Information Technology
Faculty of Information Technology And
Quantitative Science**

May 2006

DECLARATION

I hereby declare that this is the work of my own and except for quotations and summaries which have acknowledge.

May 2006

Khazian binti Kassim

2002325409

ACKNOWLEDGEMENT

***In The Name of Allah, The Most Gracious and The Most Merciful, and
Him Alone worthy of all praise***

Alhamdulillah, thanks to Allah this thesis is finally completed according to time and objectives required. A special thanks to *En. Mohamad Norzamani b. Sahroni*, my supervisor and also the Programme Coordinator of Industrial Training at Faculty of Information Technology and Quantitative Science (FTMSK) Shah Alam for his patience, dedications, guidance and also who has been contributing a lot of ideas which I'd never think of for my research. He also has supervised me starting from my proposal paper until the completion of my final research paper. This research paper cannot be completed without his support and encouragement.

My sincere gratitude is also extended to *Pn. Salwani bt Jaafar*, who has helped me a lot by giving me moral support in order for me to complete this research paper.

My acknowledgement would not be completed without my family and friends who have been there for me in the past four years, through thick and thin, who are none other than Eskandar Hardy b. Mohd Zaini and Wan Mastura bt. Mahmood who have made my life eventful and memorable one.

Thank You.

Khazian binti Kassim

May 2006

ABSTRACT

The faculty of Information Technology and Quantitative Sciences of Universiti Teknologi MARA for the past years has been using the traditional way or method in conducting the procedure regarding student's practical training. In the advanced world of technology and communication, this method was no longer considered efficient and effective due to several drawbacks that occur during the process. This thesis introduces Unified Modeling Language (UML-based) engineering framework for the development of an Online Practical Application (OPA) System to give the overall view to the architecture of the system development. Therefore, four UML-based notation diagrams are used for the development, namely Use Case Diagrams, Sequence Diagrams, Collaboration Diagrams as well as Class Diagrams based on the real-world case study: Online Practical Application (OPA) System, using PHP and MySQL as the web-development tool to develop the intended system.

TABLE OF CONTENT

	Page
TITLE	i
DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
LIST OF TABLES	ix
LIST OF FIGURES	x
ABBREVIATIONS	xii

CHAPTER 1 INTRODUCTION

1.1 Background of the problem	2
1.2 Problem Description	3
1.3 Objectives	4
1.4 Problem Scope	4
1.5 Significance	5

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction	6
2.1.1 The necessity for practical training	
2.2 Diagrams in UML	7
2.2.1 Class Diagram	
2.2.2 Use Case Diagram	
2.2.3 Sequence Diagram	
2.2.4 Collaboration Diagram	
2.3 PHP and MySQL	9
2.3.1 Overview on PHP	
2.3.2 Overview on MySQL	
2.3.3 Using PHP and MySQL	
2.3.4 Some of PHP's Strengths	
2.3.5 Some of MySQL Strengths	